

enabled to take its place, and rank first amongst the fine arts. Painting and Sculpture will then become her handmaidens, ever in attendance to adorn and exalt her.

It is at this stage of the proceeding that the question of expense comes up in its natural order—a question deserving ample inquiry, and an honest answer; and in no department of his art are the skill and qualifications of the architect more severely put to the test. The pecuniary interests of his employer are confided to his care: he looks to him, on the one hand, for protection against the undue demands of the contractor, and on the other, against an undue increase of additional works arising from his own neglect or oversight. The architect, then, requires not only a thorough knowledge of the qualities of the various departments of work, but of their value, and of the modes of measurement, in order to be able to judge of the rates of charge. Though called on to look to the interests of his employer, he is equally required to see that justice be done to the contractor. And when the accounts come to be submitted to his award, he is to act with the uprightness and integrity of a judge, and is bound to see justice done at whatever sacrifice of feeling or of self-interest,—a task, this, at once difficult and delicate, requiring a thorough knowledge of the value of the varied and multitudinous items connected with the building art, which can only be acquired by laborious and incessant perseverance.

The want of proper skill in these matters, or perhaps of proper attention to them, is the cause of that fatal error which so frequently occurs, of estimating the probable expense of a contemplated work as a sum far below what it is possible to execute it for. Such a system is injurious to the best interests of true art. It engenders suspicion and distrust, and its inevitable result is to make in future the question of cost a paramount object. And while in the first instance it may only affect the pockets of the employer, it is sure in the end to tell against the architect. Complaints against this system are not new. It is curious and instructive to find they are greatly more ancient than the days of old Vitruvius himself, as the following extract from the writings of that most judicious author amply testify.

"In the magnificent and spacious city of Ephesus," says that author, "an ancient law was made by the ancestors of the inhabitants, hard, indeed, in its nature, but, nevertheless, equitable. When an architect was intrusted with the execution of a public work, an estimate thereof being lodged in the hands of the magistrate, his property was held as security until the work was finished. If, when finished, the expense did not exceed the estimate, he was complimented with decrees and honours. So when the excess did not amount to more than a fourth part of the original estimate, no punishment was inflicted. But when more than one-fourth of the estimate was exceeded, he was required to pay the excess out of his own pocket. Would to God that such a law existed among the Roman people, not only in respect of their public, but also of their private buildings, for then the unskilful could not commit their depredations with impunity, and those who were the most skilful in the intricacies of the art would follow the profession. Proprietors would not be led into an extravagant expenditure, as so to cause their ruin. Architects themselves, from the dread of punishment, would be more careful in their calculations, and the proprietor would complete his building for that sum, or a little more, which he could afford to expend. Those who can conveniently afford to expend a given sum on any work, with the pleasing expectation of seeing it completed, would cheerfully add one-fourth more; but when they find themselves burdened with the addition of a half, or even more than half the expense originally contemplated, losing their spirits, and sacrificing what has already been laid out, they incline to desist from its completion."

But, on the other hand, it is not unfrequently happens that complaints of this kind are most unjustly preferred against the architect, who is often in this respect more sinned against than sinning. How often are his designs cut down and demanded of their fair proportions in order to effect some trifling saving in expense? and

after being contracted for in their modified form, how frequently does it occur that, during the progress of the work, one item is ordered after another by the proprietor, without due regard to the effect which these will have upon what has already been done? and the result is, that the whole becomes an incongruous piece of patchwork; and there remains the mortifying reflection that in consequence of the contracts having been interfered with, the "bills of extra work," added to the estimate, greatly exceed the sum that would have served to complete the original well-matured design. To the architect imbued with a true feeling for his art, nothing can be more tantalizing than such a result, for which he is in no way responsible, and for which he is often most unjustly blamed. It is always unwise, and seldom very safe, to interfere with plans after the work has been contracted for and fairly commenced. None but those in the practice of design can conceive how entirely one part hangs on another, and how dangerous it is to interfere with any architectural work after it is in progress. While only on paper, it may be modified or reconstructed as often as circumstances require, as, in this case, the effect of any alteration is at once seen and provided for by a readjustment of the other portions until the whole is brought into harmony. But when once contracted for, the design ought to be inviolable. Alterations in these circumstances are always costly, and the architect would do well to set his face resolutely against them. This may at times be a delicate task, requiring tact and judgment, but it is a duty which no architect who values his reputation should shrink from performing.

Where economy requires to be very closely studied, the old Vitruvian rule of avoiding materials which are not easily procured and prepared on the spot, is still the most effective, and of most general application. The building materials of the neighbourhood, heading being the cheapest, generally harmonise better with the landscape than those which are foreign to the soil. England's brick mansions of the olden time, however beautiful amidst their "tall ancestral trees," would ill accord with the stern clime and rugged scenery of the north. In ordinary cases, therefore, where mere general effect is all that can be aimed at, the building materials of the district, being not only less costly, but more artistic and effective, are to be preferred.

All ornamentation, where economy is an object, should be dispensed with: for unless fully carried out, it but serves to betray the poverty which it is meant to hide. Simplicity of outline, and a due proportion of the several forms, add nothing to the cost; and where these are properly attended to, the result will generally prove satisfactory.

Admitting, then, to the fullest extent, the importance of the question, in its proper place, which forms the subject of this paper, I have endeavoured, on the one hand, to point out the very injurious effects to architecture, as a branch of the fine arts, which follow from giving it the precedence of all our other inquiries. Its tendency is to degrade art, and to cover the country with monuments interesting to the archaeologist only, as marking the money-loving spirit of their epoch, and the low state of art at the time.

On the other hand, I have endeavoured to point out the proper period at which the all-important question as to cost ought to be determined, and the no less injurious effects which a wrong solution of the problem has upon art, and the necessity there is of the architect being thoroughly qualified to form correct estimates of the value of building materials and of labour, so that he may be able to adjust his design to the money proposed to be expended.

These remarks, it is true, do not directly bear on the principles of art or of architecture, and they may in consequence appear to some to be of too humble a nature to form the subject of a paper. But if I have succeeded in conveying in any degree a just sense of the importance, in architectural design, of limiting to its proper place the question "What will it cost," and of giving it, in its own place, a full and honest answer, I shall feel that my labours, however humble, have not been altogether in vain.

DAVID COURN.

THE DECORATION OF THE BUILDING IN HYDE PARK.

HAVING been requested to give my opinion as to the treatment in colour which ought to be given to the Great Exhibition Building—a subject which is creating considerable interest at the present moment, and has called forth suggestions from several gentlemen conversant with such matters,—I beg, through the medium of your paper, to state the leading principles which I conceive should be observed in the case, and in which circumstances have tended to confirm me.

I had not at all expected that the "Crystal Palace" would be considered an object for decoration, or that discussion would have arisen on that score respecting it; as a variety of opinion does appear to exist on the subject, however, it becomes important that a correct view should be arrived at, in order that we may not have occasion to regret the result when it is too late.

In my mind I cannot conceive any other plan of procedure than, as a *first principle*, to let every constructive portion of this important edifice tell its true story of the engineering skill which is involved in it. The Building is, by general consent, a great curiosity constructively, which alone would be a sufficient reason for avoiding the adoption of any mode of colouring which should interfere with its effect in that respect. As a *second principle*, I think such appearance of solidity or strength as the rough material would possess, should not be on any account diminished: on the contrary, if it could be increased without detriment to elegance, which, of course, has to be aimed at, I think it would be desirable.

Upon these principles, any disguising of the character of the materials is precluded, as well as any breaking up into any more minute parts. I would propose, therefore, to paint the entire upright shafts, and the horizontal beams supporting the galleries, of a middling strong green bronze colour, while I would give the upper beams the colour of Florentine bronze. The railings of the galleries, and perhaps other details, I would treat the same, in order to relieve the monotony, where it might be thought desirable on carrying out the work. The other metal divisions of the roof I would give a more golden hue, and the wooden eave-bars throughout a very light buff. The transition upward from the darker to the lighter browns, for the metallic constructional parts, might be more gradual than I have indicated; but what has to be aimed at is, to improve rather than deteriorate the relation which the parts supporting, and the parts supported, bear to each other: the idea of security being of prime importance, and worthy of being pushed to its maximum, however satisfactory the reality may be. The appropriate treatment of the broad surfaces, for the reception of the goods to be exhibited, must of course entirely depend on these latter. The glass I would leave untouched.

LEONARD W. COLLMANN.

Mr. Crace agrees with you about the columns with stripes looking like wooden ones. In this I think him correct, but I cannot agree with his "pale bronze green maroon and gold colour," as a remedy.

Mr. Sang, in his circular letters to the newspapers, talks a great deal about truth in architecture, and then seriously proposes to paint the ironwork so as to look like bronze, and to colour the glass to look like the magnificent stained windows at Chartres and Cologne. Not quite consistent this. To make the glass (which is used) look like glass, I should leave it as it is, and to make the ironwork like ironwork, I should paint it—the whole of it—of a dark chocolate colour—"picking out" the edges of certain parts sparingly with gold. If gold be objected to on account of the expense, then use the brightest yellow that we have.

Ironwork never looks like ironwork unless it be painted of a very dark colour. Use blue, red, yellow, green, &c., and it at once has the appearance, as you properly at first pointed out, of wood and pasteboard work.

AN ARCHITECT.

Mr. Watt, in his lecture on Decorative Colour, said:—"If architects would only think

* Mr. Sang favoured us with a communication on this subject, but as it appeared in the morning papers before our day of publication, we did not print it.